



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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06-13-03

In re Patent Application of

DREBIN et al

Atty. Ref.: 723-968

Serial No. 09/722,367

Group: 2671

Filed: November 28, 2000

Examiner: Nguyen, Kimbinh T.

For: RECIRCULATING SHADE TREE BLENDER FOR A  
GRAPHICS SYSTEM

\* \* \* \* \*

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May 16, 2003

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Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Under 37 C.F.R. §§ 1.56 and 1.97, the applicant directs the attention of the Patent and Trademark Office to the items listed on the attached forms PTO-1449. These items were cited in copending commonly-assigned related patent applications as indicated in the appendix and not yet of record in this case.<sup>1</sup> The Examiner is requested to cite and consider these items in this case.

Applicant is attaching copies of all items other than U.S. patents. The U.S. patents are readily available to the Examiner; applicant will submit a copy upon request.

Should the examiner need anything further to consider these items, please contact the undersigned at the telephone number listed below.

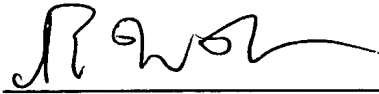
In the event a first Office Action has already been mailed, please treat this paper as a submission under 37 C.F.R. § 1.97(c) and charge Deposit Account No. 14-1140 for the fee required by 37 C.F.R. § 1.17(p). The U.S. Patent and Trademark Office is authorized to charge any fee which was asserted to have been filed or which should have been filed and to credit any overpayment, to that same Deposit Account No. 14-1140.

<sup>1</sup> The identification of the co-pending U.S. Patent Applications in the appendix is not to be construed as a waiver of secrecy as to those applications now or upon issuance of this application as a patent.

**DREBIN et al**  
Serial No. **09/722,367**

Respectfully submitted,

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APPENDIX

The items cited on the attached form PTO-1449 is of record in the co-pending related commonly-assigned patent applications as indicated below:

I. Application No. 09/465,754 filed December 17, 1999 (atty. dkt. no. 723-799)  
entitled "Vertex Cache For 3D Computer Graphics":

WO/93/04429	PCT
4,491,836	Collmeyer et al.
4,653,012	Duffy et al.
4,695,943	Keeley et al.
4,710,876	Cline et al.
4,768,148	Keeley et al.
4,785,395	Keeley
4,790,025	Inoue et al.
4,812,988	Duthuit et al.
4,829,452	Kang et al.
4,833,601	Barlow et al.
4,965,751	Thayer et al.
4,975,977	Kurosu et al.
5,056,044	Frederickson et al.
5,086,495	Gray et al.
5,163,126	Einkauf et al.
5,179,638	Dawson et al.
5,353,424	Partovi et al.
5,448,689	Matsuo et al.
5,657,045	Katsura et al.
5,657,443	Krech, Jr.
5,659,673	Nonoshita
5,726,947	Yamazaki et al.
5,740,406	Rosenthal et al.
5,745,125	Deering et al.
5,748,986	Butterfield et al.
5,751,930	Katsura et al.
5,754,191	Mills et al.
5,801,720	Norrod et al.

5,821,940	Morgan et al.
5,821,940	Morgan et al
5,822,516	Krech, Jr.
5,838,334	Dye
5,886,701	Chauvin et al.
5,887,155	Laidig
5,940,089	Dilliplane
5,949,421	Ogletree et al.
5,995,120	Dye
6,088,701	Whaley et al.
6,226,713 B1	Mehrotra
6,292,194 B1	Powll, III
6,408,362 B1	Arimilli et al.
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White paper, Rogers, Douglas H., "Optimizing Direct3D for the GeForce 256" (1/3/2000)

Hook, Brian, "An Incomplete Guide to Programming DirectDraw and Direct3D Immediate Mode (Release 0.46)," printed from web site: [www.wksoftware.com](http://www.wksoftware.com), 42 pages

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Thompson, Nigel, "Rendering with Immediate Mode," Microsoft Interactive Developer Column: Fun and Games, printed from web site [msdn.microsoft.com](http://msdn.microsoft.com), 8 pages (March 97)

"HOWTO: Animate Textures in Direct3D Immediate Mode," printed from web site [support.microsoft.com](http://support.microsoft.com), 3 pages (last reviewed 12/15/2000)

INFO: Rendering a Triangle Using an Execute Buffer," printed from web site [support.microsoft.com](http://support.microsoft.com), 6 pages (last reviewed 10/20/2000)

U.S. application Serial No. 09/337,293, filed 6/21/1999, "Multi-Format Vertex Data Processing Apparatus and Method

Datasheet, SGS-Thomson Microelectronics, nVIDIA™, RIVA 128™ 128-Bit 3D Multimedia Accelerator (10/1997)

Product Presentation, "RIVA128™ Leadership 3D Acceleration," 2 pages

Hoppe, Hugues, "Optimization of Mesh Locality for Transparent Vertex Caching,"  
PROCEEDINGS OF SIGGRAPH, pages 269-276 (August 8-13, 1999)

II. Application No. 09/726,223 filed November 28, 2000 (atty. dkt. no. 723-751)  
entitled "Z Value Clamping In Near-Z Range To Maximize Precision Of Visually  
Important Z Components And To Avoid Near-Z Clipping In A Graphics  
Rendering System":

4,888,712	BARKANS et al.
4,907,174	PRIEM
5,819,017	Akeley et al.
5,856,829	GRAY, III et al.
5,923,332	IZAWA
5,926,182	MENON et al.
5,982,376	ABE et al.
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6,046,746	DEERING
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6,144,387	LIU et al.
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III. Application No. 09/722,419 filed November 28, 2000 (atty. dkt. no. 723-958)  
entitled "Graphics Pipeline Token Synchronization":

4,989,138	Radochonski
5,345,541	Kelley et al
5,467,459	Alexander et al.
5,487,146	Guttag et al.
5,768,629	Wise et al.
5,828,907	Wise et al.
5,835,792	Wise et al.
5,872,902	Kuchkuda et al.
5,982,390	Stoneking et al.
6,046,752	Kirkland et al.
6,252,610	Hussain
6,476,808	Kuo et al.

IV. Application No. 09/722,382 filed November 28, 2000 (atty. dkt. no. 723-961)  
entitled "Method And Apparatus For Direct and Indirect Texture Processing In A  
Graphics System":

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5,469,535	JARVIS et al.
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5,582,451	COX et al.
5,586,234	SAKURABA et al.
5,664,162	DYE
5,696,892	REDMANN et al.
5,726,689	NEGISHI et al.
5,734,386	COSMAN
5,745,118	ALCORN et al.
5,751,292	EMMOT
5,764,237	KANEKO
5,777,623	SMALL
5,831,625	RICH et al.
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5,835,096	BALDWIN
5,861,888	DEMPSEY
5,877,770	HANAOKA
5,892,517	RICH
5,926,647	ADAMS et al.
5,945,997	ZHAO et al.
5,963,220	LEE et al.
5,987,567	RIVARD et al.
5,999,198	HORAN et al.
6,002,407	FADDEN
6,011,565	KUO et al.
6,040,844	YAMAGUCHI et al.
6,046,747	SAUNDERS et al.
6,052,126	SAKURABA et al.
6,057,849	HAUBNER et al.

6,057,851 LUKEN et al.  
6,057,861 LEE et al.  
6,353,438 VAN HOOK

Whitepapers: "Texture Addressing," Sim Dietrich, January 6, 2000, [www.nvidia.com](http://www.nvidia.com)

V. Application No. 09/726,218 filed November 28, 2000 (atty. dkt. no. 723-960) entitled "Method And Apparatus For Efficient Generation Of Texture Coordinate Displacements For Implementing Emboss-Style Bump Mapping In A Graphics Rendering System":

5,900,881 IKEDO  
5,880,736 PEERCY et al.  
5,808,619 CHOI et al.  
4,808,988 BURKE et al.  
6,014,144 NELSON et al.  
5,224,208 MILLER, JR. et al.  
6,078,334 HANAOKA et al.  
5,561,746 MURATA et al.  
5,659,671 TANNENBAUM et al.  
4,974,177 NISHIGUCHI  
6,081,274 SHIRAISHI  
6,031,542 WITTIG  
5,621,867 MURATA et al.

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VI. Application No. 09/722,381 filed November 28, 2000 (atty. dkt. no. 723-962) entitled "Method And Apparatus For Environment-Mapped Bump-Mapping In A Graphics System":

0 637 813 A2 EUROPEAN  
4,615,013 YAN et al.  
5,544,292 WINSER

5,563,989 BILLYARD  
5,809,219 PEARCE et al.  
5,870,102 TAROLLI et al.  
5,923,334 LUKEN  
5,956,043 JENSEN  
6,049,337 VAN OVERVELD  
6,052,127 VASWANI et al.  
6,078,333 WITTIG et al.  
6,191,794 PRIEM et al.

VII. Application No. 09/726,216 filed November 28, 2000 (atty. dkt. no. 723-967)  
entitled "Achromatic Lighting in a Graphics System and Method":

4,275,413 Sakamoto et al.  
5,016,183 Shyong  
5,097,427 Lathrop et al.  
5,361,386 Watkins et al.  
5,467,438 Nishio et al.  
5,473,736 Young  
5,495,563 Winsor, Paul A.  
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5,557,712 Guay  
5,566,285 Okada  
5,649,082 Burns  
5,687,304 Kiss, Kenneth W.  
5,740,343 Tarolli et al.  
5,943,058 Nagy  
5,956,042 Tucker et al.  
6,023,261 Ugajin  
6,232,981 Gossett, Carroll Philip  
6,239,810 Van Hook et al.  
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VIII. Application No. 09/726,226 filed November 28, 2000 (atty. dkt. no. 723-964) entitled "Method And Apparatus For Anti-Aliasing In A Graphics System":

4,897,806	COOK et al.
5,239,624	COOK et al.
5,394,516	WINSER
5,600,763	GREENE et al.
5,651,104	COSMAN
5,764,228	BALDWIN
5,818,456	COSMAN et al.
5,859,645	LATHAM
5,877,771	DREBIN et al.
5,943,060	COSMAN et al.
6,028,608	JENKINS
6,038,031	MURPHY
6,469,707 B1	Douglas Voorhies
6,496,187 B1	Michael Deering et al.

Whitepaper: Implementing Fog in Direct3D, January 3, 2000, [www.nvidia.com](http://www.nvidia.com)  
Akeley, Kurt, "Reality Engine Graphics", 1993, Silicon Graphics Computer Systems, pp. 109-116.

IX. Application No. 09/722,380 filed November 28, 2000 (atty. dkt. no. 723-957) entitled "Graphics System With Embedded Frame Buffer Having Re-configurable Pixel Formats":

5,018,076	JOHARY et al.
5,241,658	MASTERSON et al.
5,307,450	Grosssman
5,543,824	PRIEM et al.
5,559,954	SAKODA et al.
5,650,955	PUAR et al.
5,657,478	RECKER et al.
5,694,143	Fielder et al.
5,703,806	PUAR et al.
5,742,788	PRIEM et al.
5,890,190	Rutman

5,914,729 LIPPINCOTT  
5,933,154 HOWARD et al.  
6,041,010 PUAR et al.  
6,075,543 AKELEY  
6,215,497 Leung  
6,356,497 PUAR et al.  
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X. Application No. 09/585,329 filed June 2, 2000 entitled "Variable Bit Field Color Encoding" (atty. dkt. no. 723-749):

4,918,625 Yan  
5,416,606 Katayama et al.  
5,606,650 Kelley et al.  
5,767,858 Kawase et al.  
5,805,175 Priem  
5,880,737 Griffen et al.  
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5,894,300 Takizawa  
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5,986,663 Wilde  
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10.2 Alpha Blending,

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10.3 Sorting, <http://www.sgi.com/software/opengl/advanced98/notes/node147.html>

10.4 Using the Alpha Function,

<http://www.sgi.com/software/opengl/advanced98/notes/node148.html>

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XI. Application No. 09/726,212 filed November 28, 2000 (atty. dkt. no. 723-956) entitled "Method And Apparatus For Dynamically Reconfiguring The Order Of Hidden Surface Processing Based On Rendering Mode":

5,144,291	Nishizawa
5,268,995	Diefendorff et al.
6,052,125	Gardiner et al.
6,111,584	Murphy, Nicholas J.N.
6,144,365	Young et al.
6,166,748	Van Hook et al.
6,172,678 B1	Shiraishi
6,204,851B1	Netschke et al.

XII. Application No. 09/726,212 filed November 28, 2000 (atty. dkt. no. 723-973) entitled "Method And Apparatus For Providing Non-Photorealistic Cartoon Outlining Within A Graphics System":

5,091,967	Ohsawa
5,666,439	Ishida et al
5,684,941	Dye
5,757,382	Lee
5,933,529	Kim
5,940,538	Spiegel et al
6,021,417	Massarksy
6,026,182	Lee et al
6,038,348	Carley
6,061,462	Tostevin et al
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Peter J. Kovach, INSIDE DIRECT 3D, "Alpha Testing," ppp 289-291 (1999)

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Schlechtweg, Stefan et al., "Rendering Line-Drawings with Limited Resources, Proceedings of GRAPHICON '96, 6th International Conference and Exhibition on Computer Graphics and Visualization in Russia, (St. Petersburg, July 1-5, 1996) vol. 2, pp 131-137

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Hachigian, Jennifer, "Super Cel Shader 1.00 Tips and Tricks," 2 pages, [wysiwyg://thePage.13/http://members.xoom.com/\\_XMCM.jarvia/3D/celshade.html](http://members.xoom.com/_XMCM.jarvia/3D/celshade.html)

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"Cartoon Shading, Using Shading Mapping," 1 page, <http://www.goat.com/alias/shaders.html#toonshad>

web site information, CartoonReyes, <http://www.zentertainment.com/zentropy/review/cartoonreyes.html>

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XIII. Application No. 09/726,225 filed November 28, 2000 (att. dkt. no. 723-954) entitled "Method And Apparatus For Providing Improved Fog Effects In A Graphics System":

4,463,380	HOOKS, Jr.
5,268,996	STEINER et al.
5,357,579	BUCHNER et al.
5,363,475	BAKER et al.
5,412,796	OLIVE
5,415,549	LOGG
5,432,895	MYERS
5,535,374	OLIVE
5,573,402	GRAY
5,616,031	LOGG
5,724,561	TAROLLI et al.
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6,064,392 ROHNER  
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XIV. Application No. 09/722,664 filed November 28, 2000 (atty. dkt. no. 723-969)  
entitled "Controller Interface For A Graphics System":

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6,070,204 Poisner, David  
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6,155,926 MIYAMOTO et al.  
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entitled "Method And Apparatus For Texture Tiling In A Graphics System":

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5,490,240 FORAN et al.  
5,760,783 MIGDAL et al.  
5,828,382 WILDE  
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XVI. Application No. 09/722,378 filed November 28, 2000 (atty. dkt. no. 723-965) entitled "Z-Texturing":

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XVII. Application No. 09/723,336 filed November 28, 2000 entitled "Application Program Interface for a Graphics System" (atty. dkt. no. 723-976):

9-330230     JAPAN  
5,404,445     Matsumoto  
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XVIII. Application No. 09/722,663 filed November 28, 2000 (atty. dkt. no. 723-963)  
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5,644,364 KURTZE et al.  
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5,706,482	MATSUSHIMA et al.
5,740,383	NALLY et al.
5,781,927	WU et al.
5,903,283	SELWAN et al.
5,959,640	RUDIN et al.
5,986,677	JONES et al.
6,008,820	Chauvin et al.
6,035,360	Doidge et al
6,057,862	MARGULIS
6,078,338	HORAN et al.
6,091,431	SAXENA et al.
6,104,417	NIELSEN et al.
6,105,094	LINDEMAN
6,108,743	DEBS et al.
6,118,462	MARGULIS

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**entitled "Graphics Processing System With Enhanced Memory Controller":**

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5,553,228	ERB et al.
5,659,715	WU et al.
5,767,856	PETERSON et al.
5,809,278	WATANABE et al.
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5,579,456	Cosman, Michael A.
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4,695,943	Keeley et al.
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